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Shifting Boundaries: Managing Research Library Collections at the Beginning of the Twenty-First Century

Joseph J. Branin

SUMMARY. In this paper I would like to take the reader on a whirlwind review of collection management practices and issues in research libraries in the United States. Although I will greatly compress and oversimplify the contemporary history of collection management, the brevity is not as extreme as it may at first appear, for it was not until the 1950s that collection development in the United States began to emerge as a coherent management science. Over a period of about thirty-five years, from roughly 1950 through the mid-1980s, collection building in research libraries in the United States was professionalized and codified. In the first part of this paper I will review three significant is-sues-the rapid expansion of education, scholarship, and library collections; the shift from collection development to collection management; and attempts at cooperative collection developmcnt-that influenced the evolution of collection management during this formative period

INTRODUCTION: PAST, PRESENT, AND FUTURE OF COLLECTION MANAGEMENT

During the last decade, from the mid-1980s to the present, the new science of collection management has had little chance to form a solid core of practice or tradition because current economic and technological changes have quickly modified or even reversed recently established ideas about how best to operate collection management programs. In the second part of this paper I will examine the most important challenges-a weak library economy, a new digital information system, and pervasive change-facing collection management librarians during the last ten years. Finally, based on lessons learned from the last half of the twentieth century, I will make some predictions about what collection management will look like at the beginning of the twenty-first century, when I believe research librarians will truly be engaged by the theme of local access to global collections.

THE FORMATIVE YEARS OF COLLECTION MANAGEMENT: 1950-1985

The contemporary history of collection management in research libraries in the United States began in the 1950s as America emerged from World War II as a preeminent world power. For the next thirty-five years, the rapid expansion of education, scholarship, publications, and library collections in the United States-an expansion often called "the information explosion"-created great optimism and innovation in research librarianship. Librarians found themselves managing large sums of money and rapidly expanding collections in not just a few prestigious or national libraries but in literally hundreds of emerging research libraries scattered across the country. With their ranks increasing and their libraries growing, research librarians began to feel the need to examine their acquisition efforts and to begin codifying and organizing their collection building activities. There was a call in research librarianship to move from just "developing" or acquiring collections to more scientifically "managing" them.[1]

The ensuing systematic reflection on collection development and management led to some interesting findings about how collections were being used by scholars and students, about how much these collections cost to acquire and manage over time, and about how to coordinate local collection building with regional and national cooperative collection development programs.[2] As librarians during this period struggled nobly to manage the print information explosion, another challenge in the form of a whole new information technology based on the computer was quietly but quickly gathering strength. By the mid-1980s, the information explosion had turned into a real information revolution.

Rapid Expansion of Research Libraries

One has only to talk with or read about research librarians whose careers spanned the pre- and post-1950 worlds to get an indication of how the scope of scholarship in the United States changed radically in a very brief period of time. Before World War II, librarians such as James Skipper, a former director of the Research Libraries Group, could observe that library service to scholarship and research was "reasonably adequate." Study in this country concentrated on Western culture and the classical areas of science. However, as the United States emerged as a world power at mid-century, it came to require "detailed knowledge of areas of the world, which were little more than geographical expressions several generations ago."[3] Edward Holley, Professor and former Dean of the School of Library Science at the University of North Carolina, noted the same historic expansion of the scope of research libraries' collection interests. Before the war, American "collection efforts had been primarily Western European in orientation." But after 1945, the country's libraries expanded their collecting scope to include Africa, the Middle East, Asia, and Eastern Europe, especially the former Soviet Union.[4] By mid-century and during the Cold War period, detailed knowledge of all areas of the world and the rapid growth of applied and specialized science marked the patterns of scholarship in the United States.

The rapid growth of U.S. research library collections in size, variety of formats, and breadth of subject coverage was simply amazing between 1950 and the mid-1980s. For example, the University of California, Berkeley, Library's manuscript collection increased from 4.5 million to 35 million papers between 1963 and 1984.[5] In 1986, Paul Mosher, now Dean of Libraries at the University of Pennsylvania and one of the leaders of the collection management movement, could estimate that more than 70 million titles had already been published and about 700,000 new titles were appearing each year.[6] Recent UNESCO statistics estimate that worldwide annual book publishing was at 715,500 titles in 1980 and 842,000 in 1989.[7] Librarians were-and, of course, still are-drowning in an ocean of print information. Libraries, even in the best of times, could not keep up with this explosive growth in information. The example I often use to illustrate this point is the library building situation at Columbia University in New York City, where two landmark buildings, the Low and Butler Libraries, were built to house what architects at the time (in 1894 and in 1934) thought was needed for collections. Both buildings ran out of collection storage space quickly.

From Collection Development to Collection Management

By the end of the 1970s, collection management as a discipline was beginning to mature. Selection of material for acquisitions had shifted from the teaching faculty to librarians, and a number of libraries had appointed full-time collection development officers and subject bibliographers to shape and manage their rapidly growing collections.[8] In 1979 Allen Kent's seminal

and controversial work entitled *Use of Library Materials: The University of Pittsburgh Study* appeared. Kent and his research team carefully studied the use of the library collection at the University of Pittsburgh over a seven-year period and concluded "that any given book purchased had only slightly better than one chance in two of ever being borrowed." As books on the shelves aged and did not circulate, their likelihood of ever circulating diminished to as low as one chance in fifty. Journal use, in general, was also discovered to be low.[9]

Also in 1979, Charles Osburn issued his study, *Academic Research and Library Resources: Changing Patterns in America,* which in my opinion is the single most important work of the collection management movement. In it Osburn identified a number of significant trends in scholarship that were changing the nature of research and publication in the United States. Massive infusions of federal money for research, the predominance of the sciences, and the decline in foreign language competencies were, according to Osburn, changing the patterns of usefulness of library resources. The humanities-based model of collection development, with its emphasis on a well-rounded and complete record of scholarship, which Osburn found dominant in most libraries up to that time, was creating more and more frustration for both users and librarians. The new patterns of scholarship and library use, instead, called for a more service-oriented model of collection development, where currency, responsiveness, and focused attention to the needs of users were emphasized.[10]

These findings and ideas were communicated to the library profession through a series of regional collection management institutes sponsored by the American Library Association during the decade of the 1980s. At the very first institute held at Stanford University in 1981, Paul Mosher gave a keynote address entitled "Fighting Back: From Collection Development to Collection Management."[11] In it he outlined the major tasks of the new discipline of "collection management." Collection management was more than just the development or building of collections and more than just the selection and acquisitions of library resources. Collection management included these activities, but it also encompassed collection policy preparation, bibliographer training, collection analysis and use studies, preservation, and above all cooperative collection development. No library could be self-sufficient in an age that produced so much information. An organized network of local, regional, and national cooperative collection management programs was needed among research libraries to ensure that the comprehensive record of scholarship was acquired, organized, and preserved.

Attempts at Cooperative Collection Development

What emerged over this thirty-five year period was a two-stage plan for collection management. In the words of Charles Osburn, collection managers had two broad goals: first, "service to the identifiable needs of the immediate constituency," and second, "integration of local development into the national system of resource sharing in support of the long-range national academic research effort."[12] The second of these goals can be labeled "cooperative collection development," and many such efforts were undertaken in the U.S. between 1950 and 1986. Some notable examples include the Farmington Plan to distribute national responsibility for foreign acquisitions, the ill-fated National Periodicals Center, the Center for Research Libraries, the Conspectus efforts of the Research Libraries Group (RLG), and many local and regional cooperative efforts such as the Research Triangle Libraries program in North Carolina.[13] These cooperative efforts produced mixed results. By and large, there was more planning and discussion than successful, sustained implementation. Large-scale coordinated efforts especially proved hard to sustain, and by the end of the 1980s cooperative collection development on a

national level had lost much of its luster.

CURRENT TRENDS AND PRACTICE IN COLLECTION MANAGEMENT, 1986-1998

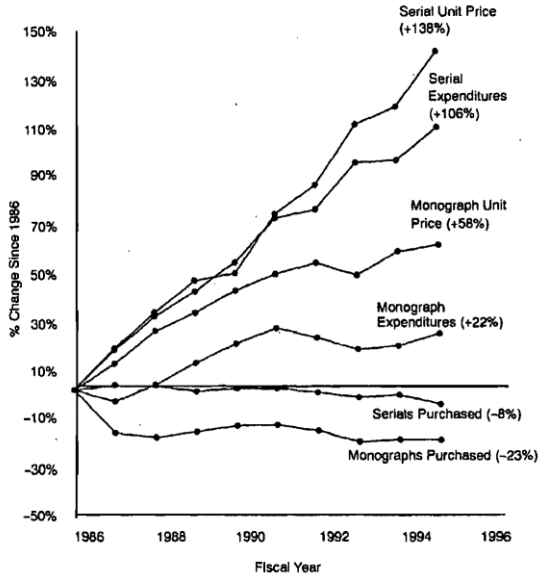
Over the last decade, collection management, like all other areas of librarianship in the United States, has been dominated by two trends: economic downsizing and the revolution in digital information technology. These forces have brought substantial change to the organization of libraries and their operational practices, in many ways shaking libraries to their very core.

Economic Decline

The economic trend, which is one of a weakening library economy in the United States, is all too easy to document. Association of Research Libraries (ARL) statistics, for example, as seen in Chart 1, show an 8% decline in serials purchased and a 23% decline in monographs purchased between 1986 and 1995 by major research libraries in North America.[14]

This decline has been further documented and analyzed in a number of recent national studies such as the 1992 Mellon Foundation report entitled *University Libraries and Scholarly Communication* and the 1994 *Project Reports oftheAAU/ARL Task Forces.*[15] Chart 2, which is from the *Project Reports of the AAU/ARL Task Forces,* illustrates, through OCLC cataloging data, the dramatic decline in foreign acquisitions by U.S. libraries since 1988.[16]
The downsizing in research libraries is not confined to just new collection acquisitions. In fact, libraries in general have maintained healthier collection budgets than personnel budgets. Chart 3, taken from the Mellon Foundation Study, *University Libraries and Scholarly Communication,* shows the changing percentages of the components of research library expenditures from 1963 to 1991.[17] Salary expenditures as a percentage of the total library budget have shown a steady decline, while operating expenditures have risen, and acquisitions expenditures have remained relatively flat.

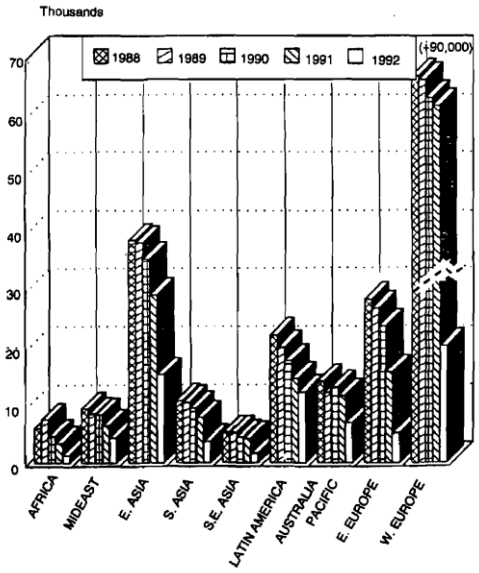
CHART 1. Monograph and Serial Costs in ARL Libraries, 19B6-1995



Source: *ARL Statistics 1994-95,* Copyright 1996 by the Association of Research Libraries, Washington, OC. Used by permission

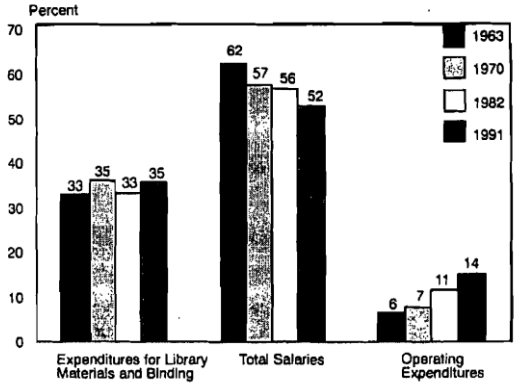
Staff size is shrinking, and libraries are scrambling to find new organizational models usually based on concepts of downsizing, flattening the hierarchy, more flexible work units, and a team approach to management and supervision. For collection management this has meant a loss of specialty, a loss of full-time jobs in collection management, and the outsourcing of many collection management activities through the use of approval plans, aggregate electronic collections, and collection analysis and preservation done by outside vendors.

CHART 2. Trends in Foreign Acquisitions
BASED ON OCLC DATABASE 1992 DATA LOW DUE TO CATALOGING BACKLOGS



Source: Report of the AAU Task Force on Acquisition and Distribution of Foreign Language and Area Studies Materials. *Association of America Universities Research Libraries Project: Report of the AAU Task Forces.* Copyright 1994 by the Association of Research Libraries, Washington, DC. Used by permission.

CHART 3. Components of Library Budget (Percentage Shares), AII-24 Universities 1963,1970.1982, and 1991



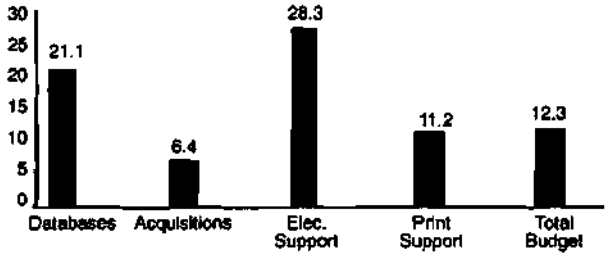
Digital Information System

The last decade has certainly been marked by the introduction of digital information services in research libraries. Librarians now have two information systems, one print and one electronic, to manage. As digital information sources were first introduced in research libraries, there was a good deal of conflict with the traditional information system: what might be called the cultural wars between print and electronic proponents began. For a taste of these print versus digital cultural wars in libraries one can read Nicholson Baker's pieces in *The New Yorker* on the demise of the card catalog and controversy over the new San Francisco Public Library building.[18] These battles have now eased or ceased in most libraries, but there are still tensions over priorities, allocations, and the desires of different constituency groups of library users. In some libraries, collection development staff and bibliographers came late to digital resources, and as a result, they let other parts of the organization-administration, systems, or reference-take on the responsibility for selection decisions regarding electronic databases.

The digital information system is growing faster than most librarians would have predicted. For example, by January of 1996 there were an estimated 90,000 Web sites on the Internet, and according to Nicholas Negroponte in *Wired* magazine, the Web is doubling in size every fifty days with a homepage added every four seconds.

Despite this phenomenal growth, print resources still largely dominate research libraries. Data from the annual 1995 and 1996 budgets at the University of Minnesota Library, which is probably typical of a large publicly supported research library, indicate that about 10% of that library's total effort, as measured by budget allocations, goes into the acquisitions and support of digital library services. However, commitments to electronic information and services are growing much faster than commitments to traditional print collections and services. Again using the University of Minnesota Library as an example, percentages of increase from 1995 to 1996 for categories of the budget were 21.1% for database acquisitions, 6.4% for print acquisitions, 28.3% for electronic support services, and 11.2% for print support services (see Chart 4). At the University of Minnesota, where print still dominates, commitments to electronic resources and services are growing twice as fast as print support.

CHART 4. Growth of Networked Services



Percent of Increase by Budget Category, 1995 to 1996, University of Minnesota Libraries

Coping with Substantial Change

Collection management librarians are faced with a very changeable environment at the end of the twentieth century. Selectors and bibliographers are trying to do their work with less buying power than they had a decade ago. There are fewer staff in collection management, and many selectors and bibliographers work at collection management part-time and handle a much

broader range of discipline responsibilities. The digital information system is truly revolutionizing the way scholarly information is published, organized, and maintained. The scope and amount of all this change is difficult to comprehend and manage. As librarians I think it is in our nature to want to cope with change in a rational and scientific manner; however, what may be called for today is a more radical approach to facing change, an approach that might be called "upside-down thinking," an approach to our changeable environment that is more "unreasonable" and creative.[20]

I do predict that we will see some "upside-down" changes in collection management in the first years of the new century ahead. In the last fifty years, local print collection management has dominated our work. Cooperative collection development and resource sharing, that is more global perspectives, have played only minor-and some might say problematic-roles in our work as collection management librarians. But in the near future, access to remote provision centers, whether they are print archives or centralized electronic data banks, will become much more important. Local collections will lose their supremacy as digital information systems make physical location of information sources less and less important. As the new century begins, we will be concerned more and more with what might be called "local access to global collections."

LOCAL AND GLOBAL COLLECTION MANAGEMENTAT THE BEGINNING OF THE TWENTY-FIRST CENTURY

I would like to end this review of collection management trends in the United States with some predictions about what will happen in this field in the next ten to twenty years. In my cloudy crystal ball, I can foresee four important trends: first, radical changes in the very structure of information services and scholarly communications; second, local print collections losing their supremacy in our library work and services; third, the creation of provision centers to serve specialized, regional, or national collection needs; and finally, fourth, the new challenge of managing local access to global collections.

Changing Structure of Scholarly Communication

We can already see some of the changes that are beginning to reshape the structure of scholarly communication. Early forms of Internet publishing that by-pass traditional publishers and libraries are exemplified by projects like the E-Print Archive at Los Alamos National Laboratory. Paul Ginsparg, the physicist who pioneered the E-Print Archive, claims that the potential of the Internet will free scholars from the tyranny of traditional publishing.[21] Costs will be lower, access will be faster, and authors will have more control over their own work in the new networked environment. On the other hand, the digital information system may foster more publisher control over scholarly information. Reed Elsevier, for example, has been aggressively consolidating its control over specialized scientific journals, and its online services may not be cheaper or less restrictive.[22] Information service vendors such as the Online Computer Library Center (OCLC), the Research Libraries Group (RLG), University Microfilms International (UMI), the Institute for Scientific Information (ISI), the Information Access Company (IAC), and Ovid are moving quickly to become "aggregators" of digital collections and services. These aggregate digital collections integrate catalogs and indexes with full-text electronic documents and with document delivery services. Scholarly societies, university presses, and commercial publishers are also beginning to offer and package their publications in digital form. Johns Hopkins University's Project Muse is a good example of a university press moving from print to

electronic distribution of its publication. Project Muse (http://muse.jhu.edu/muse.html) provides networked subscription access to the full text of Johns Hopkins University Press's forty-plus list of scholarly journals in humanities, social sciences, and mathematics. High Wire Press (http://www-jbe.stanford.edu), the Internet imprint of Stanford University Libraries, is another interesting example of innovation in scholarly publishing. High Wire Press has a growing list of online journals in biology, medicine, and general science. Elsevier, Academic Press, and the American Chemical Society now all market their entire line.of electronic journals as a complete package to individual libraries, local library consortia, and even statewide or region-wide groups of libraries.

It is not just the format that is changing as authors and publishers adopt new digital technology. Control of publishing is changing; distribution means are being altered; and ownership rights to information are being questioned and revised. The very basic structures and tenets of the scholarly record-authorship, the framing devices of the book and journal-are giving way to new concepts of bibliographic control and organization. Ross Atkinson in his insightful article "Networks, Hypertext, and Academic Information Services: Some Longer-Range Implications" predicts the design of new document structures that may "represent fundamental revisions in the very modality of communications" and that "may affect and alter some of our basic assumptions about the nature of information itself."[23] The ability to use hyperlinks to integrate scholarship online is an extraordinary driving force for the adoption of the new digital information system, a force with which the print format cannot compete.

Local Print Collections Lose Supremacy

When one looks at the historical context of collection management, it is clear that local print collection development has been the dominant concern of research librarians during the second half of the twentieth century. For all our talk and plans about our global responsibilities to take a coordinated and cooperative approach to collecting and preserving the comprehensive record of scholarship, our real priorities and limited resources have been focused on local collections that meet local needs. The traditional print format of most scholarly information is not easy to share, and our faculty and students-and library staffs too-have demanded strong local collections.

But the digital information system is changing all these geographic or information boundary issues. The early management of electronic databases in libraries provides a good example of this change. At first libraries offered electronic databases locally by purchasing, mounting, and providing stand-alone or local networking of CD-ROMs and magnetic tape files. However, now with the Internet, client-server architecture, and centralized database management, we prefer to let others manage our electronic provision sources, while we manage local access. If we can network reliably and economically over the Internet to a remote server that can send us the information we need, then we only have to worry about the local or client access and not the remote server provision. As it becomes easier and more economical to move print information around through faxing, digital conversion, and better surface delivery systems, we will see more centralized document delivery service options for print information as well. Centralized provision centers-both digital and print provision centers-with highly distributed access through either electronic networks or print document delivery systems will likely increase as a preferred pattern for organizing information services in the twenty-first century.

Certainly many research librarians are questioning the economic sense of trying to maintain large local collections to all or most scientific and technical journals. The costs have

simply climbed too fast, and most research libraries have now gone through several rounds of journal cancellations. Document delivery services are becoming more effective, and for certain journal titles, where use is below a certain threshold, per use access through print or electronic document delivery makes more sense than does local ownership. In 1991 and 1992, staff at the State University of New York at Albany gathered data on the use of their journal collection.[24] In the sciences they found that of the 1,403 current journal titles in their collection, 299 could be described as "low use" titles, that is, titles for which there were five or fewer uses in a year. These 229 low use titles were tracked as having 522 uses during the year. Their total subscription cost to the library was $103,758; therefore, cost per use-and this excludes any overhead cost for processing, managing, and storing these titles-was $198.77.

Vendors and publishers from the commercial and non-profit sectors are rushing to meet the market demand for effective print document delivery services and electronic distribution of full-text collections of current literature, government reports, journal articles, and even back-runs of journals. In just a matter of a few short years, significant amounts of scholarly content have become available in digital form, and as this new digital information system matures, libraries will spend increasing amounts of their budgets on access to electronic sources rather than on local ownership of information resources. I do believe, however, that the print information system will remain with us and be a significant part of our library services into the foreseeable future. We will have to manage two information systems, but the trend in both systems will be towards centralized provision and distributed access. Library provision from central data banks and from regional or national archive storage centers will become more commonplace.[25]

Creation of Provision Centers

The old models for global provision will not work in the new environment of the twenty-first century. The highly distributed provision and voluntary resource sharing system of interlibrary loan is breaking down under the growing traffic, high costs, and inefficiencies of a system that was designed for marginal, specialized, and complementary services. Today, access to rather than ownership of information is becoming a more central activity of research libraries, and provision centers are springing up to fill this need. Provision centers are libraries or commercial organizations that have strong collections, effective bibliographic access to these collections, rapid delivery services, and a business goal of making money through marketing, guaranteed turn around times, and competitive pricing. You can see these provision centers beginning to emerge in services offered by such organizations as CARL Uncover, the British Library Document Supply Centre, the Canadian Institute for Scientific and Technical Information (CISTI), the Institute for Scientific Information (ISI), and the Linda Hall Library.

These provision centers will be the source of first resort for high-volume document delivery sources. Their economies of scale will make them more competitive and efficient than small interlibrary loan departments. They will operate on a marketplace basis, receiving fees for their services and paying copyright owners royalty fees for copying. These provision centers, of course, will not have all needed sources of information, so I expect some form of more specialized interlibrary loan to continue among research libraries.

Managing Local Access to Global Collections

In the past, local collection development has occupied the self-interest of research librarians. Our constituents and our own values have centered on strong local print collections.

However, I predict a reversal of roles as the new digital information system matures and as provision centers become better at print document delivery services. Local access, not local collections, will be the most important goal. It will be in our self-interest to take a global perspective to collections or provision, whether electronic or print. It will be more cost and service effective to rely on remote centralized provision centers for many of our library services. Our jobs as knowledge management librarians will be to create the right mix of local and remote provision and to ensure that local access to global collections is well organized. We will have increasing responsibility to see that unique local collections, what we now call special collections, become part of the global scholarly record through better bibliographic control and new forms of publication and access.

NOTES

1. Joseph J. Branin, editor. *Collection Management in the 1990s* (Chicago: American Library Association, 1993) ix-xii.

2. See Allen Kent et al., *Use of Library Materials: The University of Pittsburgh Study* (New York: Marcel Dekker, 1979); Charles B. Osburn, *Academic Research and Library Resources: Changing Patterns in America* (Westport, CT: Greenwood Press, 1979); and Paul H. Mosher and Marcia Pankake, "A Guide to Coordinated and Cooperative Collection Development," *Library Resources and Technical Services* 27 (October/December 1983), 417-420.

3. James E. Skipper, "National Planning for Research Development," *Library Trends* 15 (October 1966), 321.

4. Edward G. Holley, "North American Efforts at Worldwide Acquisitions Since 1945," *Collection Management* 9 (Summer / Fall J,987): 92.

5. University of California, Berkeley, General Library, "Estelle Rebec Retires," *CUNews* 39 (August 2,1984), 1.

6. Paul H. Mosher, "A National Scheme For Collaboration in Collection Development: The RLG-NCIP Effort," in *Coordinating Cooperative Collection Development: A National Perspective,* ed. Wilson Luquire (New York: The Haworth Press, Inc., 1986). 21.

7. UNESCO publishing statistics

8. Ross Atkinson, "Old Forms, New Forms: The Challenge of Collection Development," *College and Research Libraries* 50 (September 1989).

9. Allen Kent et al., *Use of Library materials: The University of Pittsburgh Study* (New York: Marcel Dekker, 1979), 10.

10. Charles B. Osburn, *Academic Research and Library Resources: Changing Patterns in America* (Westport, CT: Greenwood Press, 1979).

11. *Collection Management for the 1990s,* ix-xii.

12. Osburn, p. 140.

13. Joseph J. Branin, "Cooperative Collection Development," in *Collection Management: A New Treatise,* eds. Charles B. Osburn and Ross Atkinson (Greenwich, CT; JA1 Press, 1991), 81-110.

14. Association of Research Libraries, AW. *Statistics: 194-95* (Washington, D.C.: Association of Research Libraries, 1996), 10.

15. Anthony M. Cummings et al., *University Libraries and Scholarly Communications: Study Prepared for the Andrew W. Mellon Foundation* (Washington, D.C.: Association of Research Libraries, 1992) and Association of American Universities and Association of American University Research Libraries, *Project Reports of the AAV Task Forces* (Washington, D.C.: Association of Research Libraries, 1994).

16. *Project Reports ofthe AAVTask Forces,* p. 15.

17. *University Libraries and Scholarly Communication,* p. 47.

18. See Nicholson Baker, "Discards," *The New Yorker* 70 (October 14, 1994), 64-70+, and "The Author vs. the Library," *The New Yorker* 72 (October 14,1996), 50-53+.

19. Nicholas Negroponte, Wired Magazine, 2-1-96, also Web statistics nel.genesis

20. Joseph J. Branin, editor. *Managing Change in Academic Libraries.* (New York: The Haworlh Press, Inc., 1996), 1*6.

21. Paul Ginsparg, "Winners and Losers in the Global Village," *http://xxx. lanl.gov/blurb/pg96usesco.htmL*

22. Kenneth N. Gilpin, "Concerns About an Aggressive Publishing Giant," *New York Times,* December 29,1997, D2.

23. Ross Atkinson, "Networks, Hypertext, and Academic Information Services: Some Longer-Range Implications," *College and Research Libraries,* 54 (May 1993), 211.

24. Eleanor A. Gossen and Suzanne Irving, "Ownership Versus Access and Low-Use Periodical Titles," *Library Resources & Technical Services,* 39 January 1995, 43-52.

25. Jeffrey R. Young, "In the New Model for the Research Library, Unused Books Are Out, Computers Are In," *The Chronicle of Higher Education,* October 17,1997, A27-28.

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